

The Edison Institute
Dearborn, Michigan

April
12
1937

Mr Charles L Clarke
109 Oakleigh Road
Newton, Massachusetts

Dear Mr Clarke:

We have started the placing of old steam engines and dynamos in our Museum to show the early application of engine-driven dynamos, such as a Wright engine belted to a countershaft and from there to a Brush arc light dynamo; an Armington and Sims engine belted to two #20 Edison dynamos and then some direct connected sets and through the general run of such machines.

The thought came to me that we should have a duplicate of the first Edison plant on land, the one at Hinds-Ketchum and Company, which we understand was an "A" dynamo built at Menlo Park and driven by a New York Safety Steam Power engine. Can you advise us what size engine (bore and stroke) this engine was, the speed of it and whether it was vertical or horizontal.

Any information you can furnish will be appreciated.

Very truly yours,

Jas. W. Bishop
JAS W BISHOP

JWB ES

109 Oakleigh Road,
Newton, Mass.,
April 29, 1937.

Mr. Jas. W. Bishop,
The Edison Institute,
Dearborn, Michigan.

Dear Mr. Bishop:

Your inquiry, April 12th, relative to the Edison lighting plant at the printing establishment of Hinds, Ketchum & Co., was duly received. Your query has required some search and thought. This plant was the second commercial installation, the first being on the steamship Columbia in early 1880 with the 1879 type of dynamos on wooden bases.

This second installation was made in Jan'y., 1881, according to a letter, a year later, from H. K. & Co. to The Edison Electric Light Co. See: Fourth Bulletin of the Edison Co., March 8, 1882. Therefore, the dynamo must have been of the "A" type, substantially of the 1879 type, but with the field magnets on a zinc casting on a cast-iron base instead of the 1879 wooden base. As you know, quite a number of the "A" type were made in later 1880, especially for Edison's test central station at Menlo Park, on public exhibition at Christmas time, 1880 — and my economy test on the system was made in January, 1881. See "Edisonia".

I well remember the occasion, or excitement, at Menlo Park, when the preparation was being made for the H. K. & Co. installation. Well, we pulled up stakes at Menlo Park in early February, 1881, and moved to 65 Fifth Avenue, New York City. The Edison Machine Works, Boerck Street, were empty buildings, to be equipped before the making of "Z" dynamo could be begun — a slight capacity enlargement of the "A" type, figured out by me, and in those early days, luckily just right. So H. K. & Co. must first have had an "A" dynamo.

C.L.C. - 4/29/1937

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One "A" dynamo must have constituted the original H. K. & Co. ~~original~~ plant. But it was enlarged; for in the 18th Bulletin of the Edison Co., in a statement of Edison Isolated Plants in operation, May 31, 1883, the H. K. & Co. had 240 lamps installed. What there were the types of dynamos, I do not know.

In "History of the Incandescent Lamp", 1927, by Howell and Schroeder, page 63, is an illustration, from a photograph, of what purports to be apparently the original H. K. & Co. installation. But to me the dynamo is rather a "Z" than an "A". Note that the driving engine is of the vertical type. Perhaps, when the plant was enlarged, dynamos were shifted about; and the "A" may have been discarded, for it was inferior to the "Z" type. You may wish to follow this matter up, say, with the United States National Museum, as to when the photo was taken and other information they may have concerning the installation.

Without doubt the early original plant must have caused interest, and have been news-food for New York newspapers and some technical journal. Search particularly The Sun for first part of 1881, and Scientific American, American Machinist, etc. I forget whether there was an electrical paper so early. You may thus find description of the driving engine, dynamo, etc. Try it.

I regret that I cannot give you the whole information wanted.

Many thanks for your kind remembrance for my 84th birthday — "It is pleasant to be remembered." I am in good condition for my years; but, of course, cannot "run around the block" so fast as I used to. Trusting that all goes well with you,

Kindly yours,

Chas. L. Clarke -